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ERDA FOR E. KINTNER

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FOLLOWING ARTICLE APPEARED JAPAN TIMES APRIL 7. QUOTE:
COMPUTER-CONTROLLED LASER USED TO CREATE HIGH TEMPERATURE PLASMA.
PARA. NAGOYA. A JOINT RESEARCH GROUP OF NAGOYA UNIVERSITY AND
THE UNIVERSITY OF TOKYO HAS SUCCESSFULLY GENERATED SUPER HIGH
TEMPERATURE PLASMA BY USING COMPUTER-CONTROLLED LASER BEAMS, IT
WAS LEARNED TUESDAY.

ACCORDING TO TADASHI SEKIGUCHI OF THE UNIVERSITY OF TOKYO WHO
HEADS THE GROUP, THIS IS THE FIRST TIME SUPER HIGH TEMPERATURE
PLASMA HAS BEEN GENERATED BY MEANS OF LASER BEAMS.

PROF. SEKIGUCHI ALSO SAID THAT THIS WAS ANOTHER MAJOR STEP
FORWARD TOWARD SUCCESSFUL NUCLEAR FUSION, THE DREAM ENERGY SOURCE
OF THE FUTURE.

PROF. SEKIGUCHI IS SCHEDULED TO REPORT ABOUT THE JOINT NUCLEAR
FUSION RESEARCH GROUP'S ACHIEVEMENT TO INTERNATIONAL CONFERENCES
IN GERMANY AND FRANCE IN JUNE.

NUCLEAR FUSION SYSTEMS NOW UNDER DEVELOPMENT IN MAJOR COUNTRIES
MOSTLY EMPLOY WHAT IS KNOWN AS A GAS DISCHARGE METHOD IN GENERAT-
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ING SUPER HIGH TEMPERATURE PLASMA IN A MAGNET-CONTAINED VACUUM.

HOWEVER, WITH THIS, IT IS VERY DIFFICULT TO GENERATE PURE PLASMA BECAUSE IMPURITIES FROM THE VACUUM VESSELS AND OTHER COMPONENTS MIX WITH THE PLASMA.

THE SYSTEM DEVELOPED BY THE JAPANESE GROUP INSTANTLY IRRADIATE LASER BEAMS ON LOW TEMPERATURE PLASMA COMPOUND PELLETS WHICH FALL THROUGH SUPER VACUUM MAGNETIC FIELD SPACE.

THE PELLETS MEASURE 0.05 TO 0.2 MILLIMETER IN DIAMETER AND LASER BEAMS TRAP THEM IN 100 MILLIONTHS OF A SECOND.

TO SOLVE THE TECHNICAL DIFFICULTY OF IRRADIATING LASER BEAMS ON THE TINY PELLETS IN SUCH A SHORT TIME, THE NEWLY-DEVELOPED SYSTEM EMPLOYS A COMPUTER SYSTEM FOR COMPUTING THE PELLETS' MOVEMENT AND CONTROLLING LASER BEAMS.

WITH THE DEVELOPMENT OF THE NEW SYSTEM, IT IS NOW POSSIBLE TO GENERATE SUPER HIGH TEMPERATURE PURE PLASMA RELATIVELY EASILY, ACCORDING TO THE GROUP.

THE GROUP CLAIMS THAT IT HAS ALREADY SUCCESSFULLY GENERATED XENON PLASMA OF 20 MILLION TO 30 MILLION C. BY USING A GLASS LASER SYSTEM WITH A MAXIMUM OUTPUT OF 2 MILLION KILOWATTS.

IT ALSO CLAIMS TO HAVE SUCCESSFULLY GENERATED HEAVY HYDROGEN PLASMA OF AN AVERAGE TEMPERATURE OF 4 MILLION C. TO CAUSE NUCLEAR FUSION, HEAVY HYDROGEN PLASMA MUST BE HEATED UP TO 100 MILLION C.

THE GROUP'S IMMEDIATE TARGET IS TO GENERATE PURE PLASMA AT TEMPERATURES RANGING FROM 30 MILLION TO 50 MILLION C. ACCORDING TO PROF. SEKIGUCHI, THE NEWLY DEVELOPED PLASMA GENERATION SYSTEM IS COMPATIBLE WITH MAGNET-CONTAINING NUCLEAR FUSION SYSTEMS NOW UNDER DEVELOPMENT IN THE WORLD'S LEADING COUNTRIES.

NUCLEAR FUSION IS A PHENOMENON WHEREBY THE ATOMS OF LIGHTER ELEMENTS SUCH AS HYDROGEN, HELIUM OR LITHIUM CHANGE INTO THE ATOMIS OF HEAVIER ELEMENTS IN NUCLEAR REACTION.
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THAT PROCESS GENERATES ENORMOUSLY LARGE AMOUNTS OF ENERGY. THE HEAVY HYDROGEN, NEEDED FOR NUCLEAR FUSIONS, IS CONTAINED IN SEA WATER ALMOST INEXHAUSTIBLY. END QUOTE.
HODGSON

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